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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,047	10/13/2005	Stephan Hueffer	264731US0PCT	6812

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EXAMINER	
KHAN, AMINA S	
ART UNIT	**PAPER NUMBER**
1751	

NOTIFICATION DATE	DELIVERY MODE
06/15/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/524,047	HUEFFER ET AL.	
	Examiner	Art Unit	
	Amina Khan	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-19,21-24,26,28,30,32,34,36 and 38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-19,21-24,26,28,30,32,34,36 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to applicant's amendments filed on March 21, 2007.

2. Claims 14-19,21-24,26,28,30,32,34,36 and 38 are pending. Claims 1-13, 20,25,27,29,31,33,35 and 37 have been cancelled. Claim 38 is new. Claims 14-19,21-24,26,28,30,32,34 and 36 have been amended.

3. All prior rejections are withdrawn in view of applicant's amendments.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 14,16,18,19,21,23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plapper et al. (US 4,272,242).

Plapper teaches tanning leathers with a combination of aluminosilicates of particle size in the range of 0.2 to 25μm (column 9, lines 15-20), specifically kaolinites (column 8, lines 5-10). Plapper further teaches that tanning can be accomplished with vegetable-synthetic tanning materials or chrome tanning materials (column 12, lines 5-

15; column 23, example 4). Plapper further teaches that the desired particle size can be adjusted by grinding and air sifting (column 9, lines 15-20).

Plapper does not teach all the instantly claimed components in a single example and is silent as to a bimodal distribution.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the instantly claimed components from the teachings of Plapper to arrive at the instantly claimed methods because Plapper teaches similar components (fine particle clays and tanning agents) combined in similar processes (tanning processes) to treat similar leather products. Regarding the limitation of bimodal distribution, it would be obvious to one of ordinary skill in the art to sift the kaolinites such that a bimodal distribution is achieved because Plapper teaches the claimed particle diameters and that the desired particle size can be adjusted by grinding and air sifting. Sifting the resulting clay would obviously provide particles with a diameter less than 0.5μm and particles less than 5μm.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch,* 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re*

Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see *In re Wertheim,* 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff,* 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

6. Claims 14-19,21-24,26,28,30,32 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komforth et al. (US 6,033,590) in view of Plapper et al. (US 4,272,242).

Komforth teaches retanning leather with glutaraldehydes (column 3, lines 25-30), vegetable tanning agents (column 3, lines 40-45), chromium tanning agents (column 3, lines 30-35), kaolins, polysaccharides, dyes, pigments, polyurethanes and nitrocellulose (column 4, lines 1-7,20-40 and 45-67).

Komforth is silent as to the particle size of the kaolins.

Plapper, in the analogous art of tanning leather, teaches combining chrome or vegetable tannins in combination with kaolinites of particle size 0.2 to 25μm (column 9, lines 15-20) for the benefits of easy dispersion in water and to reduce the amount of chromium salts in the tanning liquor (column 12, lines 24-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the retanning methods taught by Komforth by incorporating the kaolinites of the particles sizes claimed by Plapper because Plapper

clearly teaches the ease of dispersion benefits and chrome waste reduction benefits of kaolinites in leather tanning. One of ordinary skill in the art would have been motivated to combine the teachings of the references absent unexpected results.

Regarding the limitation of bimodal distribution, it would be obvious to one of ordinary skill in the art to sift the kaolinites such that a bimodal distribution is achieved because Plapper teaches the claimed particle diameters and that the desired particle size can be adjusted by grinding and air sifting. Sifting the resulting clay would obviously provide particles with a diameter less than 0.5μm and particles less than 5μm.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch,* 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see *In re Wertheim,* 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff,* 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

7. Claims 32, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komforth et al. (US 6,033,590) in view of Cramer et al. (US 2002/0192366).

Komforth is relied upon as set forth above. Komforth invites the inclusion of kaolins and agents which improve the resistance to abrasion and scuffing into the compositions (column 4, lines 35).

Komforth does not teach hectorite or muscovite at the claimed particle sizes.

Cramer teaches the functional equivalence between kaolins, hectorite and muscovite in leather treatment compositions (paragraph 0043). Cramer further teaches the particle sizes are 2 nm to 750 nm (paragraph 0041). Cramer further teaches these compositions provide leather with reduced damage to abrasion (paragraph 0040).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the retanning methods taught by Komforth by incorporating the kaolinites, hectorites or muscovite of the particles sizes claimed by Cramer because Cramer clearly teaches abrasion resistance kaolinites, hectorites and muscovites provide to leather in these particle sizes. One of ordinary skill in the art would have been motivated to combine the teachings of the references absent unexpected results.

Regarding the limitation of bimodal distribution, it would be obvious to one of ordinary skill in the art to sift the kaolinites, hectorites, or muscovites such that a bimodal distribution is achieved because Cramer teaches the claimed particle diameters and that the desired particle size can be adjusted by grinding and air sifting. Sifting the

resulting clay would obviously provide particles with a diameter less than 0.5μm and particles less than 5μm.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch,* 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see *In re Wertheim,* 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff,* 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AK
June 11, 2007

LORNA M. DOUYON
PRIMARY EXAMINER